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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,376	04/20/2004	Nozomu Tamoto	252035US DIV	3769

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EXAMINER

RONESI, VICKEY M

ART UNIT PAPER NUMBER

1714

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/827,376	Applicant(s) TAMOTO ET AL.	
	Examiner Vickey Ronesi	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,7-26,28-32 and 47-60 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,7-25,28-32 and 47-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26 and 51-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/30/05, 12/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/23/2005 has been entered.
2. All outstanding rejections have been withdrawn in light of applicant's amendment filed 12/23/2005.

Information Disclosure Statement

3. In the Information Disclosure Statements (IDS) filed 9/30/2005 and 12/23/2005 have been considered, however, they only list patent applications and not published documents. They have therefore been struck from the IDS. Note that U.S. application serial no. 11/172,989 cited on the IDS filed 9/30/2005 has been published as PGPub 2006/0014093 and has been cited by the examiner on US Form 892.

Claim Rejections - 35 USC § 102/103

4. Claims 26, 51-56, 58, and 60 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakao et al (US 4,559,288).

Nakao et al discloses an electrophotographic photoreceptor having an interlayer, wherein the interlayer comprises colloidal silica and/or alumina (col. 7, line 36-62); a polymer having an

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acid value of 10-100 (i.e., organic compound) (col 4, line 18 to col. 7, line 10); and another polymer (i.e., binder) (col. 7, line 11-36); and a plurality of solvents (e.g., col. 9, lines 19-30).

With respect to the presently claimed resistivity $10^{10} \Omega \cdot \text{cm}$ of the filler, it is the examiner's position that alumina and silica inherently have it since applicant also utilizes alumina and silica and a material and its properties are inseparable. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Nakao et al fails to disclose that its composition is prepared by using a ball mill containing alumina balls, however, claim 26 is a product-by-process claim and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Thus, given that Nakao et al discloses the presently claimed composition, it is clear that it anticipates the presently cited claims.

Alternatively, while Nakao et al does not explicitly disclose a process of mixing the ingredients with an alumina ball mill, given that the presently claimed composition is disclosed it is considered that that it would have been obvious to one of ordinary skill in the art to obtain the same final product, absent a showing of criticality for the presently claimed process for Nakao et al's composition, and thereby arrive at the presently cited claims.

Claim Rejections - 35 USC § 103

5. Claims 26, 51, 52, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzschke et al (US 6,329,020).

Patzschke et al discloses a coating material (abstract) comprising filler/pigment such as carbon black (col. 20, line 51; col. 12, lines 35-50; col. 16, line 56); conventional rheological organic additives such as carboxyl group-containing polyacrylate copolymers with an acid number of 60 to 780 (col. 13, lines 52-65); an aqueous dispersion of a polymer (i.e., binder resin); and a plurality of solvents (col. 13, line 66 to col. 14, line 9).

Patzschke et al does not exemplify a composition comprising each of the recited ingredients, nevertheless, it is considered that it would have been obvious to one of ordinary skill in the art to obtain a composition with the presently claimed ingredients given that they are each taught by Patzschke et al. While Patzschke et al does not explicitly disclose a process of mixing the ingredients with an alumina ball mill, given that the presently claimed composition is disclosed it is considered that that it would have been obvious to one of ordinary skill in the art to obtain the same final product, absent a showing of criticality for the presently claimed process for Patzschke et al's composition, and thereby arrive at the presently cited claims.

6. Claims 26 and 51-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al (US 6,335,061) in view of Patzschke et al (US 6,329,020).

It is noted that the intended use of "for an outermost layer of an electrophotographic photoreceptor" has not been given patentable weight. Case law holds that "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a

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purpose or intended use for the invention, the preamble is not a claim limitation.” See *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997).

Kanamori et al discloses a coating composition comprising colloidal silica and/or alumina (col. 18, lines 58-62) and other fillers (col. 22, lines 49-51; col. 23, lines 31-59); a dispersing agent such as polyacrylate (col. 23, line 64 to col. 24, line 4); a binder resin (abstract); a plurality of solvents (e.g., Table 2, col. 29, lines 33-35); and coupling agents (col. 24, line 16). Note that since Kanamori et al discloses the same fillers as presently claimed, the fillers of Kanamori et al intrinsically have the presently claimed resistivity.

While Kanamori et al discloses the use of a polyacrylate dispersing agent, it fails to teach the acid value of it.

Patzschke et al discloses a coating composition and teaches that polyacrylate rheological additives include preferred carboxyl group-containing polyacrylate copolymers with an acid number of 60-780 which is used to wet the metal pigments/additives (col. 13, lines 52-65).

Given that Kanamori et al is open to the addition of polyacrylate dispersing agents and further given that polyacrylates with the presently claimed acid numbers are advantageous rheological additives as taught by Patzschke, it would have been obvious to one of ordinary skill in the art to utilize a polyacrylate with the presently claimed acid number in the coating composition of Kanamori et al. While neither Kanamori et al nor Patzschke et al explicitly discloses a process of mixing the ingredients with an alumina ball mill, given that the presently claimed composition is disclosed it is considered that that it would have been obvious to one of ordinary skill in the art to obtain the same final product, absent a showing of criticality for the

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presently claimed process for Kanamori et al's composition, and thereby arrive at the presently cited claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claim 26 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 27 of copending Application No. 10/625,570 (published as US 2005/0100804). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

US appl. '570 claims a coating liquid comprising a filler, an organic compound having an acid value of 10-700 mgKOH/g, a binder resin, and plural organic solvents which is prepared by mixing the ingredients in a ball mill containing alumina balls.

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While US appl. '570 does not claim the organic compounds such as polymers, copolymers, or oligomers having saturated or unsaturated hydrocarbon skeletons and at least one carboxyl group, note page 45, lines 9-14 in the specification of US appl. '570 which teaches that polymers, copolymers, or oligomers having saturated or unsaturated hydrocarbon skeletons and at least one carboxyl group are preferably used as the organic compound. Case law holds that those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Given that US appl. '570 teaches the use of the presently claimed organic compounds, it would have been obvious to one of ordinary skill in the art to utilize polymers, copolymers, or oligomers having saturated or unsaturated hydrocarbon skeletons and at least one carboxyl group and thereby arrive at the presently cited claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

8. Applicant's arguments filed 12/23/2005 have been fully considered but they are not persuasive. Specifically, applicant argues that the 132 Declaration filed 12/23/2005 establishes criticality for the process of mixing the ingredients in an alumina ball mill in the product-by-process claim.

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With respect to the argument, the data is considered to be insufficient to establish a criticality for mixing with an alumina ball mill since the data is commensurate in scope with the present claims or comparable to the prior art. First, while the alumina ball mill improves the dispersion of the exemplified composition, there is no suggestion that all compositions encompassed by the composition limitations would also exhibit such improved properties. In particular, the prior art discloses coating compositions with fillers other than alumina which would not necessarily be affected by a process of mixing in a ball mill with alumina balls. Second, claim 26 recites that the ingredients are mixed “using a ball mill *containing* alumina balls” (emphasis added), which suggests that other kinds of balls can also be included. Applicant’s data only shows criticality for a ball mill consisting of only alumina balls. Third, while the dispersion time is improved for the one exemplified composition, it is unclear how this improved dispersion affects the final coating product. Case law holds that “[i]f the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/1/2006

vr



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